REMARKS:

Claims 1-17 are pending in the application.

Response to Rejection of Claims Under 35 USC §103

Claim 1

Claim 1 is directed to apparatus for making laminated pads, each pad comprising a body laminated with at least a first cover layer. The apparatus comprises:

a) a first cutting roll at a first cutting station for cutting a fiber web as it is fed through a first cutting nip to form individual bodies in the web arranged in predetermined positions relative to one another;

b) a sealing roll at a sealing station defining a sealing nip, wherein the sealing roll receives said at least first cover layer from a cover web feed apparatus for lamination with said bodies to form a laminated web adapted to pass through said sealing nip for sealing of the laminated web by said sealing roll;

c) said first cutting roll and said sealing roll having axes of rotation lying in a first plane and having outer surfaces spaced from one another a distance in said first plane;

d) a first vacuum transfer cylinder rotatable for conveying the bodies from the first cutting station toward the sealing station while maintaining the bodies in their predetermined positions relative to one another, said first vacuum transfer cylinder having an axis of rotation spaced from said first plane and having a diameter greater than said distance between said first cutting roll and said sealing roll;

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e) said first vacuum transfer cylinder and said first cutting roll being spaced apart to define a first transfer nip for transfer of the bodies from the first cutting roll to the first vacuum transfer cylinder, and said first vacuum transfer cylinder and said sealing roll being spaced apart to define a second transfer nip for transfer of the bodies from the first vacuum transfer cylinder to the sealing roll; and

f) an adjustment mechanism for varying the spacing between the axis of rotation of the first vacuum transfer cylinder and said first plane thereby to adjust the spacing at the first and second transfer nips.

Claim 1 is submitted to be nonobvious and patentable over the references of record, and in particular U.S. Patent No. 6,527,902 (Rajala) in view of U.S. Patent No. 3,784,187 (Takayanagi et al.), in that whether considered alone or in combination the references fail to show or suggest a first vacuum transfer cylinder, a first cutting roll defining a first transfer nip with the transfer cylinder, and a sealing roll defining a second transfer nip with the transfer cylinder, wherein the transfer cylinder has an axis of rotation offset from a plane defined by the axes of rotation of the cutting roll and sealing roll and also has a diameter greater than the distance between the cutting roll and the sealing roll, and an adjustment mechanism for varying the spacing between the axis of rotation of the transfer cylinder and the plane to adjust the spacing at both the first and second transfer nips.

Rajala discloses a process and apparatus for cutting discrete components of a multicomponent article and depositing the discrete components with registration on a moving web of

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material. With particular reference to Figure 4 of Rajala, the apparatus disclosed by Rajala includes a die cutting apparatus 300 comprising an anvil roll 302 and die cut roll 304 which cuts workpieces from a web 202 of material. The workpieces are conveyed by the die cut roll 304 to a nip Y at which the workpieces are transferred to a speed-matching roll 125. The speed-matching roll 125 applies a vacuum to the workpieces to retain the workpieces thereon. The speed-matching roll 125 forms another nip with a second speed-matching roll 150. As the workpieces enter this nip, the workpieces are vacuum transferred onto the second speed-matching roll in stacked registration with respective workpieces cut from another web 212 and carried by the second speed-matching roll.

The stacked workpieces are carried on the second speed-matching roll to a moving web 222 having adhesive thereon and conveyed by a conveyor 106. The stacked workpieces are suctioned off of the second speed-matching roll 150 onto the moving web 222 to adhere the workpieces to the moving web.

Takayanagi et al. disclose a folding apparatus for use in a bookbinding process having two modes of operation. In one mode, the folding apparatus is adapted to fold 8-page sections (Fig. 3-4) and, in the other mode, 16-page sections (Figs. 1-2). As shown in Figs. 2 and 3, a web is directed from a rotary press (not shown) through either one or two triangular formers 1, 2 to fold the web a desired number of times depending on the mode of operating being employed. The web is then directed to a nip formed between a first serrated cutter 4 and a folding cylinder 5 where it is cut by a serration 11 located on the first serrated cutter 4. In the mode adapted to fold 8-page sections, the web is carried by the folding cylinder 5 to

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another nip formed by a second serrated cutter 10 where it is cut by a second serration 11 positioned on the second serrated cutter. As shown in Figs. 3-4, half of the 8-page sections are transferred from the second serrated cutter 10 to conveyor 18. The other half of the 8-page sections are transferred from the second serrated cutter 10 to a gripping cylinder 16 and then to conveyor 19. When forming 16-page sections, as shown in Figs. 1-2, the web is transferred by the folding cylinder 5 from the first serrated cutter 4 directly to gripping cylinder 16 thereby bypassing the second serrated cutter 10 which is retracted to an inoperable position. The web is further cut and folded to form the 16-page sections, which are transferred by conveyor 19.

The second serrated cutter 10 is supported by pressure-fluid cylinder 14, which is operable to move the second serrated cutter 10 into engagement with the folding cylinder 5 when the apparatus is used to fold 8-page sections and out of engagement when the apparatus is used to fold 16-page sections since it is not needed.

1. Rajala and Takayanagi et al., whether considered alone or in combination, fail to teach or suggest all of the features of claim 1.

Neither Rajala nor Takayanagi et al. teach or suggest a vacuum transfer cylinder having a diameter greater than the distance between the first cutting roll and the sealing roll. Accordingly, a combination of these references also fails to disclose or suggest such a feature.

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Attached hereto as Exhibit A is a copy of Fig. 4 of Rajala with a line P drawn between the axes of rotation of the second speed-matching roll 150 and the die cut roll 304 to indicate the plane defined by the axes of rotation of these rolls. Assuming for the sake of argument that the second speed-matching roll 150 of Rajala can be characterized as a sealing roll as is maintained in the final Office action, it is readily apparent from the attached Exhibit A that the first speed-matching roll 125 is located between the die cut roll 304 and the second speed-matching roll 150 with the axis of rotation of the first speed-matching roll 125 lying on the line P between (i.e., in the plane defined by) the axes of rotation of the second speed-matching roll 150 and the die cut roll 304. Accordingly, Rajala fails to disclose the transfer cylinder having a rotation axis spaced from the plane P defined by the rotation axes of a sealing roll and a cutting roll.

Moreover, because the axis of rotation of the first speed-matching roll lies on the line P, the diameter D of the first speed-matching roll 125 is unquestionably less than the distance X between die cut roll 304 and the second speed-matching roll 150. Accordingly, Rajala further fails to teach or suggest a vacuum transfer cylinder having a diameter greater than the distance between the first cutting roll and the sealing roll as recited in claims 1.

Takayanagi et al. also fail to teach or suggest this feature, i.e., a vacuum transfer cylinder having a diameter greater than the distance between the first cutting roll and the sealing roll. The second serrated cutter 10, characterized in the final Office action as a vacuum cylinder, is supported by pressure-fluid cylinder 14. The cylinder 14 is operable to

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move the second serrated cutter 10 into engagement with the folding cylinder 5 when the apparatus is used to fold 8-page sections and out of engagement when the apparatus is used to fold 16-page sections since it is not needed. Takayanagi et al. fail altogether to disclose a first cutting roll spaced from the serrated cutter 10 to define a first transfer nip, and a sealing roll spaced from the serrated cutter to define a second transfer nip. Thus, Takayanagi et al. also fail to teach or suggest a vacuum transfer cylinder having a diameter greater than the distance between the first cutting roll and the sealing roll as recited in claim 1.

Applicants note that the final Office action, and in particular paragraph 2 thereof, does not set forth the Office's position with respect to which features of Rajala and/or Takayanagi et al. teach or suggest the transfer cylinder having a diameter greater than the distance between the first cutting roll and the sealing roll. In fact, the final Office is completely silent on this element and therefore fails to make a prima facie case of obviousness. An Interview Request Form was faxed to the Office on December 14, 2004, requesting, among other things, clarification of the Office's position on this element. The request was respectfully declined by the Examiner.

The only insight into the Office's position that can be gleaned from the final Office action is provided in paragraph 4 thereof which states that "adjustment of the transfer cylinder axis (out of the plane with cutting and sealing cylinders) would provide a shorter distance than the diameter of the transfer cylinder." Respectfully, this is simply not so. Referring again to Exhibit A, the diameter D of the first

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speed-matching roll 125 is located along line P and is clearly less than the distance between the second speed-matching roll 150 and the die roll 304. Movement of the first speed-matching roll 125 relative to line P would only result in the rotation axis of the first speed-matching roll 125 being spaced from the line P. The spacing between the second speed-matching roll 150 and the die roll 304, however, would not decrease at all because the roll 150 and roll 304 are not being moved closer to each other. Thus, the diameter D of the first speed-matching roll 125 would still be less than the distance between the second speed-matching roll 150 and the die roll 304.

The references also fail to show or suggest an adjustment mechanism for moving the transfer cylinder relative to both the sealing roll and the cutting roll to simultaneously vary the spacing between both the first and second transfer nips upon movement of the transfer cylinder as recited in claim 1. Notably, the fluid cylinder 14 of Takayanagi et al. is used vary only one nip, i.e., the nip between the second serrated cutter 10 and the folding cylinder 5. Thus, Takayanagi et al. fail to disclose an adjustment mechanism for moving a transfer cylinder to vary the spacing of both first and second nips. As recognized in paragraph 2 of the final Office action, Rajala fails altogether to disclose an adjustment mechanism. Since both Rajala and Takayanagi et al. fail to disclose an adjustment mechanism for moving a transfer cylinder to vary the spacing between both first and second nips, a combination of the references would similarly fail to disclose such a feature.

For the above reasons alone, claim 1 is submitted to be nonobvious and patentable over the references of record.

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2. There is also no suggestion or motivation to combine Rajala and Takayanagi et al. in the manner advanced by the Office.

Applicants disagree that it would have been obvious to include the fluid cylinder of Takayanagi et al. to the first speed-matching roll 125 of Rajala to provide an adjustment mechanism to move a transfer cylinder to thereby vary the spacing between first and second transfer nips. The Office's sole position appears to be that because Takayanagi et al. disclose a fluid cylinder that moves a roll to adjust a single nip, it would have been obvious to provide an adjustment mechanism on the transfer cylinder recited in claim 1 to move the cylinder simultaneously relative to both the sealing roll and cutting roll to vary the size of the first and second transfer nips defined in part by the transfer cylinder.

The final Office action does recognize that obviousness can only be established by modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references or in the knowledge generally available to one of ordinary skill in the art. MPEP ' 2143.01 citing In re Kotzab, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000). However, the Office takes the position that the only issue regarding motivation is "adjustability." This is not the case. Claim 1 is not limited solely to any one of the rolls being moveable. Rather, claim 1 relates to the relative positioning between three different rolls and the adjustment of one roll relative to the others to adjust the spacing of two nips simultaneously.

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The real issue is the lack of motivation to be found in Rajala or Takayanagi et al. for providing an adjustment mechanism to move the first speed-matching roll 125 of Rajala. For example, Takayanagi et al. disclose the fluid cylinder being used to adjust a single nip. At most, one skilled in the art would be motivated by Takayanagi et al. to provide an adjustment mechanism to move the die roll 304 to vary the spacing only at the first transfer nip, or to provide an adjustment mechanism to move the second speed-matching roll 150 to vary the spacing only at the second transfer nip. Any motivation to move the transfer cylinder to vary the spacing between both a cutting roll and a sealing roll simultaneously impermissibly comes solely from the present application.

For these additional reasons, claim 1 is further submitted to be nonobvious and patentable over the references of record.

Claims 2-10 depend directly or indirectly from claim 1 and are submitted to be patentable over the references of record for the same reasons as claim 1.

Claim 11

Claim 11 is directed to a method of adjusting pad-making apparatus comprising:

a) mounting a first cutting roll at a first cutting station for cutting a fiber web as it is fed through a first cutting nip to form individual bodies in the web arranged in predetermined positions relative to one another;

b) mounting a sealing roll at a sealing station defining a sealing nip, the sealing roll being adapted to receive at least a first cover web from a cover web feed apparatus for lamination with said bodies to form a laminated web adapted to

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pass through said sealing nip for sealing of the laminated web by said sealing roll;

c) said first cutting roll and said sealing roll, as mounted, having axes of rotation lying in a first plane and having outer surfaces spaced from one another a distance in said first plane;

d) mounting a first vacuum transfer cylinder having a diameter greater than said distance between said first cutting roll and said sealing roll in a position wherein an axis of rotation of the cylinder is spaced from said first plane and the cylinder is spaced from the first cutting roll and said sealing roll to define first and second transfer nips, respectively; and

e) varying the spacing between the axis of rotation of the first vacuum transfer cylinder and said first plane thereby to adjust the spacing at the first and second transfer nips.

Claim 11 is submitted to be nonobvious and patentable over the references of record, and in particular, Rajala and Takayanagi et al., for substantially the same reasons discussed above in connection with claim 1. That is, whether considered alone or in combination the references fail to show or suggest 1) the step of mounting a first vacuum transfer cylinder having a diameter greater than said distance between said first cutting roll and said sealing roll, and 2) the step of varying the spacing between the axis of rotation of the first vacuum transfer cylinder and a first plane thereby to adjust the spacing at the first and second transfer nips.

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Claims 12-17 depend directly or indirectly from claim 11 and are submitted to be patentable over the references of record for the same reasons as claim 11.

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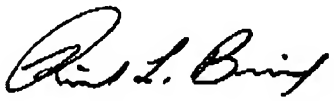
Conclusion

In view of the foregoing, favorable consideration and allowance of claims 1-17 as now presented is respectfully requested.

Respectfully submitted,



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